IN THE CLAIMS

Please amend the claims as follows:

1.   (Currently Amended) A computer implemented method of creating process models, the method comprising:

selecting a symbolic generic model for a component represented in a symbolic language;

choosing assumptions about a component to be modeled; and

applying the assumptions to the symbolic generic model to derive a component specific model reflecting the assumptions; and

storing the component specific model on a computer-readable medium.

2.   (Previously Amended) The method of claim 1 wherein the symbolic generic model comprises symbolic representations that are environment independent.

3.   (Currently Amended) The method of claim 2 wherein the component specific model reflects the an environment of the process to be modeled.

4.   (Original) The method of claim 1 wherein the symbolic language is selected from the group consisting of Mathematica, Axiom, MAPLE and ADIFOR.

5.   (Original) The method of claim 1 and further comprising maintaining a log of assumptions and applied model transformations.

6.   (Previously Amended) The method of claim 1 wherein the symbolic generic model comprises a proper ancestor model.

7.   (Previously Amended) The method of claim 1 wherein the component specific model

comprises a specific environment model.

8.   (Previously Amended) The method of claim 1 wherein multiple specific models are

derived from multiple symbolic generic models corresponding to multiple components in a

process or manufacturing facility.

9.   (Currently Amended) The method of claim 1 wherein the symbolic generic model

~~component~~ is a flash column.

10.   (Currently Amended) The method of claim 9 wherein the symbolic generic model

~~component~~ comprises representations of parameters selected from the group consisting of ~~the~~ a

rate of change of the mass of vapor, rate of change of ~~the~~ a mass of liquid, energy change of ~~the~~ a

vapor, energy change of ~~the~~ a liquid, pressure equilibrium correlation, thermal equilibrium

correlation, vapor and liquid enthalpy equations, equal pressure, gas law, and volume correlation.

11.   (Currently Amended) A system for creating process models, the system comprising:

        means for selecting a symbolic generic model for a component represented in a symbolic

language;

        means for choosing assumptions about a component to be modeled; ~~and~~

        means for applying the assumptions to the symbolic generic model to derive a component

specific model reflecting the assumptions; and

        means for storing the component specific model on a computer-readable medium.

12.   (Previously Amended) The system of claim 11 wherein the symbolic generic model comprises symbolic representations that are environment independent.

13.   (Currently Amended) The system of claim 12 wherein the component specific model reflects the environment of ~~the~~ a process ~~to be~~ being modeled.

14.   (Original) The system of claim 11 and further comprising maintaining a log of assumptions and applied model transformations.

15.   (Previously Amended) The system of claim 11 wherein the symbolic generic model comprises a proper ancestor model.

16.   (Previously Amended) The system of claim 11 wherein the component specific model comprises a specific environment model.

17.   (Previously Amended) The system of claim 11 wherein multiple component specific models are derived from multiple symbolic generic models corresponding to multiple components in a process or manufacturing facility.

18.   (Currently Amended) The system of claim 17 wherein the symbolic generic component comprises representations of parameters for a flash column selected from the group consisting of ~~the~~ a rate of change of the mass of vapor, rate of change of ~~the~~ a mass of liquid, energy change of ~~the~~ a vapor, energy change of ~~the~~ a liquid, pressure equilibrium correlation, thermal equilibrium correlation, vapor and liquid enthalpy equations, equal pressure, gas law, and volume correlation.

19.   (Currently Amended) A computer readable medium having instructions for causing a computer to perform a method of creating process models, the method comprising:

selecting a symbolic generic model for a component represented in a symbolic language;

choosing assumptions about a component to be modeled; and

applying the assumptions to the symbolic generic model to derive a component specific model reflecting the assumptions; and

storing the component specific model on a computer-readable medium.

20.   (Original) A development environment for process modeling comprising:

a set of generic models, each comprising a environment independent symbolic representation of a component;

an interface that provides selectable environment specific assumptions for each component to be modeled; and

a set of environment specific representations of the components derived from the generic models based on the assumptions.

21.   (Previously Added) The method of claim 1 wherein the assumptions about the component to be modeled are chosen from a log of assumptions.